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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,081	04/14/2004	Vikass Monebhurrun	B-5417 621836-8	7167
7590	06/29/2005			EXAMINER PHAN, THO GIA
			ART UNIT	PAPER NUMBER 2821

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/825,081	MONEBHURRUN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Tho G. Phan	2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 April 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,6-9 and 16-20 is/are rejected.
- 7) Claim(s) 2-5 and 10-15 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/2/04</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

### ***Claim Objections***

1. Claims 4-5, 7-8, 10-11 and 19 are objected to because of the following informalities:

In claim 4, line 3, "a" should change to –the--.

In claim 5, line 2, "grounded member" should change to –grounded plane--.

In claim 7, line 1, "1" should change to –6—(so as to support for the antecedent basis of the phrase "the conductive patch").

In claim 8, line 1, "1" should change to –7—(so as to support for the antecedent basis of the phrase "the feed connector").

In claim 10, line 2, "grounded element" should change to –grounded plane--.

In claim 11, line 2, "grounded element" should change to –grounded plane--.

In claim 11, line 2, "a ground" should change to – the ground--.

In claim 19, line 1, "20" should change to –18—(so as to support for the antecedent basis of the phrase "the switching means").

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6-9 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reece et al (6,208,311) in view of Kaloi (5,389,937).

Reece et al in figures 1-4 disclose a planar antenna assembly 10 mounted on a substrate 15, the assembly including a monopole element (see column 2, lines 54-58 and figure 7a) and at least one parasitic element 14 grounded (via 22) to an adjacent ground plane 20 and located proximate the monopole element, and the feed connector is a SMA connector 80a/80b (figure 10). Reece et al have been discussed but fail to teach a planar conductive member/patch adapted to function as a signal feed for the antenna, and the conductive member is electrically coupled to the feed connector. However, Kaloi in figure 1 discloses a conductive member 20 (see crossed section) adapted to function as a signal feed for the antenna (via inner conductor 19, see abstract), and the conductive member is electrically coupled to the feed connector 18. It would have been obvious to provide Reece et al with the conductive member/patch adapted to function as a signal feed for the antenna, and the conductive member is electrically coupled to the feed connector for the purpose of obtaining wide bandwidth operation.

Reece/Kaloi et al fail to specifically teach the specific bands of operation as claimed. However, the specific bands of operation would have been obvious in the art. Antennas and their elements are routinely "frequency scaled" and thus claims limitations are obvious design choices of wide bandwidth and matching variation with frequency as of interest.

4. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reece et al modified by Kaloi and further in view of Pritchett (5,767,807).

Reece et al modified by Kaloi have been discussed above but fail to teach a switching means. However, Pritchett in figures 6-7 discloses a switching means assembly. It would have been obvious to provide a switching means as taught by Pritchett for the purpose of outputting signals representing a selected antenna direction.

### **Allowable Subject Matter**

5. Claims 2-3 and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 4-5 and 10-11 would be allowable if rewritten to overcome the above listed objection(s), set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

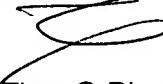
### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Milne, Bolljahn, Munson et al and Fang et al are cited as of interest and illustrated a similar structure to a planar antenna device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho G. Phan whose telephone number is 571-272-1826. The examiner can normally be reached on M-F, 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tho G Phan  
Primary Examiner  
Art Unit 2821